WE CLAIM:

1. A protein having the following physicochemical properties:

(1) Molecular weight

19,000±5,000 daltons on gel filtration and sodium dodecylsulfate polyacrylamide gel electrophoresis (SDS-PAGE);

(2) Isoelectric point (pI)

4.8±1.0 on chromatofocusing;

(3) Partial amino acid sequence

Possessing partial amino acid sequences in SEQ ID NOs:1 and 2; and

(4) Biological activity

Inducing the interferon-γ production by immunocompetent cells.

2. The protein as claimed in claim 1, which has the amino acid sequence containing the N-terminal in SEQ ID NO:3 (where the symbol "Xaa" means "methionine" or "threonine") or a homologous amino acid sequence to the amino acid sequence.

3. A DNA which encodes the protein of claim 1.

4. The DNA as claimed in claim 3, which contains a base sequence selected from the group consisting of the base sequence containing the 5'-terminus in SEQ ID NO:4, a homologous base sequence to the base sequence, and a complementary base sequence to these base sequences.

5. The DNA as claimed in claim 3, wherein one or more bases in SEQ ID NO:4 are replaced with other bases by means of the degeneracy of genetic code without alternating the amino acid

sequence in SEQ ID NO:3.

6. The DNA as claimed in claim 3, which is derived from mouse liver.

7. A replicable recombinant DNA which contains a self-replicable vector and a DNA encoding the protein of claim 1.

8. The replicable recombinant DNA as claimed in claim 7, which contains a base sequence of a member selected from the group consisting of the base sequence containing the 5'-terminus in SEQ ID NO:4, a homologous base sequence to the base sequence, and a complementary base sequence to these base sequences.

9. The replicable recombinant DNA as claimed in claim 7, wherein one or more bases in SEQ ID NO:4 are replaced with other bases by means of the degeneracy of genetic code without alternating the amino acid sequence of SEQ ID NO:3.

10. The replicable recombinant DNA as claimed in claim 7, wherein said vector is pGEX-2T.

11. A transformant obtainable by introducing into a host a replicable recombinant DNA which contains a self-replicable vector and a DNA encoding the protein of claim 1.

12. The transformant as claimed in claim 11, which contains a base sequence of a member selected from the group consisting of the base sequence containing the 5'-terminus in SEQ ID NO:4, a homologous base sequence to the base sequence, and a complementary base sequence to these base sequences.

13. The transformant as claimed in claim 11, wherein one or more bases in SEQ ID NO:4 are replaced with other bases by means of the degeneracy of genetic code without alternating the amino acid sequence of SEQ ID NO:3.

14. The transformant as claimed in claim 11, wherein

said vector is pGEX-2T.

15. The transformant as claimed in claim 11, wherein said host is a microorganism of the species *Escherichia coli*.

16. A process for preparing a protein, which comprises (a) culturing a transformant capable of forming the protein of claim 1 in a nutrient culture medium, and (b) collecting the formed protein from the resultant culture.

17. The process as claimed in claim 16, wherein said transformant is obtainable by introducing into a host a replicable recombinant DNA which contains a self-replicable vector and a DNA encoding the protein.

18. The process as claimed in claim 16, wherein said DNA contains a base sequence selected from the group consisting of the base sequence containing the 5'-terminus in SEQ ID NO:4, a homologous base sequence to the base sequence, and a complementary base sequence to these base sequences.

19. The process as claimed in claim 16, wherein one or more bases in SEQ ID NO:4 are replaced with other bases by means of the degeneracy of genetic code without alternating the amino acid sequence in SEQ ID NO:3.

20. The process as claimed in claim 16, wherein said vector is pGEX-2T.

21. The process as claimed in claim 16, wherein said host is a microorganism of the species *Escherichia coli*.

22. The process as claimed in claim 16, wherein the protein formed in the step (a) is purified by one or more purification methods selected from the group consisting of concentration, salting out, dialysis, separatory sedimentation, gel filtration chromatography, ion-exchange chromatography,

hydrophobic chromatography, affinity chromatography, chromatofocusing, gel electrophoresis, and isoelectric point electrophoresis.

23. A monoclonal antibody which is specific to the protein of claim 1.

24. The monoclonal antibody as claimed in claim 23, which belongs to the class of IgG or IgM.

25. The monoclonal antibody as claimed in claim 23, which is monoclonal antibody M-1mAb.

26. A hybridoma capable of ~~forming~~ producing the monoclonal antibody as claimed in claim 23.

27. The hybridoma as claimed in claim 26, which is hybridoma M-1.

28. A process for producing a monoclonal antibody, which comprises culturing *in vivo* or *in vitro* a hybridoma capable of ~~forming~~ producing the monoclonal antibody as claimed in claim 23, and collecting the ~~formed~~ produced monoclonal antibody from the resultant culture or the resultant liquid culture medium.

29. The process as claimed in claim 28, wherein the monoclonal antibody is collected from the resultant culture or liquid culture medium by one or more methods selected from the group consisting of salting out, dialysis, filtration, concentration, centrifugation, separatory sedimentation, gel filtration chromatography, ion-exchange chromatography, high-performance liquid chromatography, affinity chromatography, gel electrophoresis and isoelectric point electrophoresis.

30. The process as claimed in claim 28, wherein said hybridoma is hybridoma M-1.

31. A method for purifying a protein, ~~which~~ comprises

contacting the monoclonal antibody of claim 23 with a mixture containing impurities and a protein having the following physicochemical properties to adsorb it on the monoclonal antibody, and desorbing the adsorbed protein from the monoclonal antibody:

(1) Molecular weight

19,000±5,000 daltons on gel filtration and sodium dodecylsulfate polyacrylamide gel electrophoresis (SDS-PAGE);

(2) Isoelectric point (pI)

4.8±1.0 on chromatofocusing;

(3) Partial amino acid sequence

Possessing partial amino acid sequences in SEQ ID NOs:1 and 2; and

(4) Biological activity

Inducing the interferon-γ production by immunocompetent cells.

32. The ~~method~~ process as claimed in claim ~~31~~ 28, wherein said monoclonal antibody is coupled to a water-insoluble carrier.

33. The method as claimed in claim 31, wherein said protein has an amino acid sequence selected from the group consisting of the amino acid sequence containing the N-terminal in SEQ ID NO:3 (where the symbol "Xaa" means "methionine" or "threonine"), and a homologous amino acid sequence to the amino acid sequence.

34. A method for detecting a protein having the following physicochemical properties, which comprises a step of contacting the monoclonal antibody of claim 21 with a test sample containing the protein to effect immunoreaction:

(1) Molecular weight

19,000±5,000 daltons on gel filtration and sodium dodecylsulfate polyacrylamide gel electrophoresis (SDS-PAGE);

(2) Isoelectric point (pI)

4.8±1.0 on chromatofocusing;

(3) Partial amino acid sequence

Possessing partial amino acid sequences in SEQ ID NOs:1 and 2; and

(4) Biological activity

Inducing the interferon-γ production by immunocompetent cells.

35. The ~~method~~ process as claimed in claim ~~34~~ 28, wherein said monoclonal antibody is labeled with a member selected from the group consisting of a radioactive substance, an enzyme, a fluorescent substance, and mixtures thereof.

36. An IFN-γ production inducing agent which contains an effective amount of the protein of claim 1 as an effective ingredient.

37. A therapeutic agent comprising a pharmaceutically-acceptable carrier and an effective amount of the protein of claim 1 as an effective ingredient.